

**Exhibit A**

>gb|AAB39007.1|  transmembrane protein Jagged 1 [Homo sapiens]  
Length=1218

GENE ID: 182 JAG1 | jagged 1 (Alagille syndrome) [Homo sapiens]  
(Over 10 PubMed links)

Score = 741 bits (1914), Expect = 0.0  
Identities = 353/353 (100%), Positives = 353/353 (100%), Gaps = 0/353 (0%)

Query 1	MGSVIPDGAKWDDDCNTCQCLNGRIACSKVWCGRPCLLHKGHSECPSGQSCIPILDDQC	60
Sbjct 866	MGSVIPDGAKWDDDCNTCQCLNGRIACSKVWCGRPCLLHKGHSECPSGQSCIPILDDQC	925
Query 61	FVHPCTGVGECRSSSLQPVTKCTSDSYYQDNCANITFTFNKEMMSPGLTTEHICSELRN	120
Sbjct 926	FVHPCTGVGECRSSSLQPVTKCTSDSYYQDNCANITFTFNKEMMSPGLTTEHICSELRN	985
Query 121	LNILKNVSAEYIYIACEPSPSANNEIHVAISAEDIRDDGNPIKEITDKIIDLVSKRDGN	180
Sbjct 986	LNILKNVSAEYIYIACEPSPSANNEIHVAISAEDIRDDGNPIKEITDKIIDLVSKRDGN	1045
Query 181	SSLIAAVAEVRVQRRPLKNRTDFLVPLLSSVLTVAWICCLVTAFYWCLRKRRKPGSHTHS	240
Sbjct 1046	SSLIAAVAEVRVQRRPLKNRTDFLVPLLSSVLTVAWICCLVTAFYWCLRKRRKPGSHTHS	1105
Query 241	ASEDNTTNNVREQLNQIKNPIEKHGANTVPIKDYENKNSKMSKIRTHNSEVEEDDMDKHQ	300
Sbjct 1106	ASEDNTTNNVREQLNQIKNPIEKHGANTVPIKDYENKNSKMSKIRTHNSEVEEDDMDKHQ	1165
Query 301	QKARFAKQPAYTLVDREEKPPNGPTKHPNWTNKQDNRDLESAQSLNRMEYIV	353
Sbjct 1166	QKARFAKQPAYTLVDREEKPPNGPTKHPNWTNKQDNRDLESAQSLNRMEYIV	1218